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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/683,831	10/09/2003	Ming-Hou Dai	2001046	2701

7590 08/04/2006

PRO-TECHTOR INTERNATIONAL
20775 Norada Court
Saratoga, CA 95070-3018

EXAMINER	
KOSTAK, VICTOR R	
ART UNIT	**PAPER NUMBER**
2622	

DATE MAILED: 08/04/2006

Please find below and/or attached an Office communication concerning this application or proceeding.

✓

Office Action Summary	**Application No.** 10/683,831	**Applicant(s)** DAI ET AL.
	Examiner Victor R. Kostak	**Art Unit** 2622

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

1)☐ Responsive to communication(s) filed on _____.
2a)☐ This action is **FINAL**. 2b)☒ This action is non-final.
3)☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

4)☒ Claim(s) *1-28* is/are pending in the application.
  4a) Of the above claim(s) _____ is/are withdrawn from consideration.
5)☐ Claim(s) _____ is/are allowed.
6)☒ Claim(s) *1-5, 7-17 and 19-28* is/are rejected.
7)☒ Claim(s) *6 and 18* is/are objected to.
8)☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

9)☐ The specification is objected to by the Examiner.
10)☒ The drawing(s) filed on *09 October 1983* is/are: a)☒ accepted or b)☐ objected to by the Examiner.
  Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
  Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
11)☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

12)☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
  a)☒ All b)☐ Some * c)☐ None of:
    1.☒ Certified copies of the priority documents have been received.
    2.☐ Certified copies of the priority documents have been received in Application No. _____.
    3.☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
  * See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

1) ☒ Notice of References Cited (PTO-892)
2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
3) ☒ Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)
  Paper No(s)/Mail Date *5/28/04 & 6/7/04*.
4) ☐ Interview Summary (PTO-413)
  Paper No(s)/Mail Date. _____ .
5) ☐ Notice of Informal Patent Application (PTO-152)
6) ☐ Other: _____.

1. Because the IDS of 06/07/04 is a duplicate of the IDS dated 05/28/04, the references listed thereon have already be considered in the earlier submittal.

2. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

> (a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negatived by the manner in which the invention was made.

Claims 1-5, 7-17 and 19-28 are rejected under 35 U.S.C. 103(a) as being unpatentable over Hagiwara et al. in view of Walters.

Hagiwara discloses several embodiments of a PC and broadcast tuner combination (noting Figs. 4 and 10-12) in which power consumption is reduced by virtue of the component arrangements (e.g. section [0032]). Included in the embodiment shown in Fig. 10 are a tuner 111 that receives a broadcast signal and produces (what can be considered as) an original video signal; video processor 112 for converting the original video signal into displayable form on monitor 52; a microprocessor (CPU) 21 that is connected to the overall system components for control thereof by way of control signals through common bus 27; a computer signal convertor (bridge circuit) 113 that converts the original video signal into a format that enables recording in computer hard disk drive (HDD) 24 (section [0054]); wherein when the computer components are turned off the broadcast signal processing stages are powered on, the display is automatically powered on (sections [0020], [0058] and [0065]). When the computer circuitry is turned on, the broadcast processing and display are activated, as well as the recording in computer stage 24 (sections [0020], [0021], [0031], [0032], [0054] and [0058]).

Hagiwara discloses displaying a received NTSC video signal (e.g. section [0053]), which is either straight from tuner 111 (after conversion by stage 112), or selected from HDD storage 24 by switching (selector) stage 120. Digitization is also disclosed (e.g. section [0054]).

Walters also merges computer processing with television broadcast processing into a single arrangement (noting Fig. 1), and further discloses the desirability to display the imagery in different formats in view of the differing computer/television display modes (e.g. col. 1 lines 13-18 and lines 30-36). As such, Walters makes available standard interlaced television on a non-interlaced computer monitor by providing deinterlacing (e.g. col. 2 lines 21-25), including digitization (e.g. col. 1 lines 8-11).

In view of this, it would therefore have been obvious to one of ordinary skill in the art to ensure that standard television broadcast available by Hagiwara can be displayed on a standard non-interlaced monitor when computer and television processors are combined in a single system, by providing the necessary processing therefor, as taught by Walters, thereby meeting claim 1.

As for claim 24, the television/computer arrangement of Hagiwara (noting the embodiment in Fig. 10) includes a PC 200, and therefore qualifies as a computer system.

As for claims 11 and 25, Walters also points out that multiple tuners can be included in a combined computer/television arrangement, and discusses plural benefits for doing such (col. 8 lines 59-62). In view of this express teaching and plural specific benefits disclosed, it would therefore have been obvious to one of ordinary skill in the art to include plural tuners in Hagiwara for the express benefits disclosed by Walters. Each tuner would thereby include respective processing stages in providing the separate video channel to be selected.

As for claims 2 and 12, CPU 21 is connected to all of the system elements (directly or indirectly by way of bus 27), and selector (switch) 120 controlled by the CPU and positioned after video processor 112 (or the first processor when plural tuners are included). When modified by Walters, deinterlacing would be associated with the display unit 52. therefore, selector/switch 120 would be located between processor 112 and the deinterlacing processing.

As for claims 3 and 13, alternatively, it would have been obvious to operatively combine the processor 112 with the deinterlacing which would thereby merge the display conversion processing. In so doing, selector/switcher 120 would be positioned between the video processing stage and the display 52.

Regarding claim 14, Hagiwara as modified by Walters includes picture-in-picture capabilities, which would involve selective display of the available video sources, which would include the plural tuners and the stored programming in HDD 24. Switching/selecting would accordingly be used in determining which of the plural sources would be chosen for display in the PiP mode.

As for claims 4 and 15, Hagiwara as modified by Walters would include deinterlacing of the received video signal, and appropriate conversion into displayable form (including RGB conversion as provided by stage 112) would make available the imagery on display 52 to the viewer.

As for claim 16, the retrieval of initially recorded video programming from HDD 24 would qualify as a third video signal available for display (the video signals from first and second tuners providing the first and second video signals), in Hagiwara modified by Walters. The I/O interface stage 26 of PC 200 (Fig. 10), with CPU 21, generates access signals in the selection of the available video signals, and the third video signal from source 24 is converted from compressed form (done so for storage considerations: section [0055]). In the PiP mode, any of the three signals can be combined to present simultaneous display subsequent to any necessary deinterlacing.

As for claims 5 and 17, Hagiwara compresses the video signal to conserve storage prior to downloading into HDD 24, as noted above, but does not specify the compression format. Therefore, it would have been obvious to use any well known format such as the well known MPEG format, which is done by Walters (e.g. col. 8 line 66 – col. 9 line 1).

Considering claims 7 and 19, bridge circuit (convertor) 113 qualifies as a computer interface since it with interfaces with signal source 111 and the HDD stage under the control of CPU 21, through bus 27.

As for claims 8 and 20, the embodiment shown in Fig. 10 of Hagiwara also includes a remote controller 220 that is associated with CPU 21, wherein the video processing stages are activated to enable display (section [0078]).

As for claims 9 and 21, it would have been obvious to consider or designate any of the programs available in respective channel bands capable of being received by tuner 111 as a "general" signal if the user prefers. Any of the received "general" or non-general video signals would accordingly be processed for eventual display.

Regarding claim 10, broadcast tuning inherently includes some kind of demodulating (decoding) in the operation of reproducing the original signal.

As for claim 22, it would have been obvious to consider or designate any of the programs available in respective channel bands capable of being received by tuner 111 as a "general" signal if the user prefers, as explained above. Processing of such would be carried out by the respective video processor stage (when Hagiwara is modified by Walters to include plural tuners).

As for claim 23, each tuner stage broadcast tuning inherently includes some kind of demodulating (decoding) in the process of reproducing the original signal, and each tuner stage (in Hagiwara modified by Walters) would include the necessary demodulating/decoding stage.

As for claims 26-28, the embodiment of Fig. 10 of Hagiwara includes a PC 200 with additional devices and therefore qualifies as a computer system. One of ordinary skill in the art can consider the display, the computer, or the video processing apparatus as including the remaining components of the apparatus described above, explained in the addressing of claims 1 and 11.

3. The prior art made of record and not relied upon is considered pertinent to applicant's disclosure.

4. Claims 6 and 18 appear allowable over the prior art.

5. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Victor R. Kostak whose telephone number is (571) 272-7348. The examiner can normally be reached on Monday - Friday from 6:30am-3:00pm.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, David W. Ometz can be reached on (571) 272-7593. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see http://pair-direct.uspto.gov. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

Any response to this action should be mailed to:

Commissioner of Patents and Trademarks
P.O. Box 1450
Alexandria, Virginia 22313-1450

Or faxed to:

(571) 273-8300

Any inquiry of a general nature or relating to the status of this application or proceeding should be directed to the Customer Service Office whose telephone number is (703) 308-HELP.

Victor R. Kostak
Primary Examiner
Art Unit 2622

VRK